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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,240	08/29/2001	Holger Janssen	10191/1799	9707

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EXAMINER	
DIEP, NHON THANH	

ART UNIT	PAPER NUMBER
2613	7

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/857,240	JANSSEN, HOLGER	
	Examiner	Art Unit	
	Nhon T Diep	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 August 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 August 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6; 8/21/2001*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 12-14, and 21-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen et al (US 6,326,915).

Chen et al discloses a radar device comprising the same device for monitor the environment of a vehicle being parked, comprising at least one video camera, the at least one video camera having a vision field, the vision field being fixed relative to the vehicle (in the absence of any teachings with regard to pan, tilt, and zoom, camera 11 is considered to have a fixed vision field); at least one display unit, one of the at least one display unit being a video display unit for representing the vision field (fig. 6); and at least one object-detection sensor for detecting objects in an area outside of and directly

adjacent to the vision field (col. 4, ln. 7-10: wave sensor detects obstacles where camera cannot) wherein a driver of the vehicle is informed via the at least one display unit of an existence of the objects located outside of the vision field of the at least one video camera detected by the at least one object detection sensor (col. 4, ln. 50-53) as specified in claim 12; the existence of the objects outside of the vision field are represented in edge areas of the video display unit (fig. 6, el. 121, 122, 123) as specified in claim 13; an object detection unit (fig. 2, el. 40); an image processing unit (fig. 2, el. 32); wherein the at least one object detection sensor is coupled to the objection detection unit, the objection detection unit being coupled to the image processing unit for selected digital image processing of video images from the at least one video camera, objects in the vision field of the at least one video camera being automatically detected and communicated to the driver (fig. 2, 40-30-32-31-11-12 and fig. 3, el. 12 and col. 4, 7-14) as specified in claim 14; wherein the at least one object-detection sensor is one of an ultrasound sensor, a radar sensor, and a lidar sensor (fig. 2, el. 21) as specified in claim 21; and wherein distances to detected objects are calculated using the object-detection unit, numerical values of the distances being overlaid in the video display unit (fig. 6, el. 123) as specified in claim 22.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al.

As applied to claim above, Chen et al further disclose a downstream superimposition unit; where objects detected by the object-detection unit are superimposed on a video image using the downstream superimposition unit (fig. 2, el. 40-30 and col. 4, ln. 37-53) as specified in claim 15. It is noted that Chen et al does not particularly disclose that the objects detected by the object-detection unit are modeled using simple geometric forms as specified in claim 15. Since, any models of detected objects to be displayed, including he model of simple geometric forms could be constructed and to be superimposed onto the display unit with video images and therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to modify the system of Chen et al by using a simple geometric forms to represent a detected object for superimposition with video images. Doing so would help to have a better and clearer illustration of detected.

5. Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al, in view of Czekaj (US 5,742,141).

As applied to claim 12 above, it is noted that Chen et al does not particularly disclose:

a. a maneuver calculating unit, the maneuver calculating unit processing external parameter including an instantaneous steering angle; wherein an actual-steering angle display can be carried out in the video display unit by applying calculations made in the maneuver calculating unit; the object-detection unit supplies

the maneuver calculating unit with data concerning detected objects and the maneuver calculating unit calculates a parking maneuver on the basis of the supplied data; wherein the parking maneuver is represented in the video display unit in the form of a steering angle suggestion; a control unit, the control unit being coupled to the maneuver calculating unit, the control unit automatically executing the parking maneuver as specified in claims 16-19; and

b. the maneuver calculating unit includes a storage unit for standard parking maneuver including parking in a private garage, a standard parking maneuver being accessible for automatically executing the parking maneuver when the corresponding environment is detected by the object-detection unit as specified in claim 20.

With regard to a: Czekaj also teaches that "the first device is mounted on the vehicle and contains a display screen that displays a deviation of the steering angle from the required value as determined by the parking program. In response to the displayed information, the vehicle operator performs the required parking motion by steering so that the indicator is kept close to zero. The second device is a fully automated system that does not require any operator involvement because the vehicle is steered automatically using a computer controlled mechanism. Therefore, It would have been obvious to one of ordinary skilled in the art at the time the invention was made to modify the system of Chen et al to include a maneuver calculating unit, the maneuver calculating unit processing external parameter including an instantaneous steering angle; wherein an actual-steering angle display can be carried out in the video display unit by applying calculations made in the maneuver calculating unit; the object-

detection unit supplies the maneuver calculating unit with data concerning detected objects and the maneuver calculating unit calculates a parking maneuver on the basis of the supplied data; wherein the parking maneuver is represented in the video display unit in the form of a steering angle suggestion; a control unit, the control unit being coupled to the maneuver calculating unit, the control unit automatically executing the parking maneuver as taught by Czekaj. Doing so would help to precisely park a car in any parking space.

With regard to b: Czekaj also teaches that "the operator merely brings the vehicle into the vicinity of a standard initial parking position and engages the automated parking control system. ". It would have been obvious to one of ordinary skilled in the art at the time the invention was made to modify the system of Chen et al to include a storage unit for standard parking maneuver including parking in any frequent used parking space including a private garage, a standard parking maneuver being accessible for automatically executing the parking maneuver when the corresponding environment is detected by the object-detection unit as taught by Czekaj. Doing so would help avoid any human mistakes in parking a car.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Tyckowski et al (US 6,154,149) discloses an object detection by pattern recognition.

b. Gutta et al (US 6,424,273) discloses a system aid driver to determine whether to change lanes.

c. Kakinami et al (US 6,476,730) discloses an assistant apparatus and method for a vehicle in reserve motion.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhon T Diep whose telephone number is 703-305-4648. The examiner can normally be reached on m-f.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris S Kelley can be reached on 703 305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NHON DIEP
PRIMARY EXAMINER

ND
24 June 2004